



AF/1713

PATENT #17
5/23/01
AS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF : Michael J. Sullivan
FOR : **IMPROVED
MULTI-LAYER GOLF BALL**

SERIAL NO. : 09/121,628
FILED : July 23, 1998
EXAMINER : D. Buttner
GROUP ART UNIT : 1713
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REPLY BRIEF UNDER 37 C.F.R. 1.193

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

This is in reply to the Examiner's Answer mailed March 19, 2001.

This Reply Brief addresses the Examiner's arguments presented in the Answer under the headings "(10) Grounds of Rejection," and "(11) Response to Argument." Specifically, this Reply responds to the Examiner's views concerning (1) the handling of provisional obviousness double patenting rejections and entry of amendments after final, (2) the rejections at issue based upon prior art and the Examiner's interpretation of that art, and (3) the previously submitted evidence of commercial success.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Assistant Commissioner for Patents, Washington, DC 20231, on 5/17/01.

Mary Ann Ternovare
(SIGNATURE)

1. The Proper Handling of Provisional Obviousness-Type Double Patenting Rejections

As previously noted by Appellant, claims 1-8 and 12-16 were provisionally rejected for obviousness-type double patenting.

A previously filed response overcame the provisional rejection for §101 double patenting of claims 1-8 and 13-16.

Accordingly, the provisional rejection under § 101 for claim 12 remains, in addition to the provisional obviousness-type double patenting rejection of claims 1-8 and 12-16. Both of these rejections are based upon Appellant's copending application serial No. 08/815,556.

a. The Provisional Rejection of Claim 12 Under § 101 and Refusal to Enter an After Final Amendment

As explained on page 4 of its Appeal Brief, Appellant previously amended claim 12 by including a recitation that the ionomeric outer cover layer exhibits a Shore D hardness of from about 20 to about 40. With that amendment, claim 12 would not be claiming "the same invention" as any claims in the copending '556 application. Accordingly, the § 101 rejection of claim 12 would be remedied.

The Examiner refused to enter that amendment on grounds that the "Shore D language is new issue."

In the recently filed Answer, the Examiner explained the reason for denying entry of that amendment:

The amendment of 6/9/00 was denied entry due to the new issue of Shore D language which requires further consideration and possibly an additional reference.

See second paragraph under the section "(11) Response to Argument" in the Examiner's Answer.

While Appellant does not dispute the fact that the Examiner is within his authority to deny entry of amendments after issuance of a final rejection, Appellant takes issue with the Examiner's overly rigid and inflexible practice.

In support of the above quoted passage, the Examiner cited MPEP § 714.13 which provides:

It should be kept in mind that applicant cannot, as a matter of right, amend any finally rejected claims.

However, the Examiner conveniently ignored a preceding section, MPEP § 714.12 which states (emphasis added):

Once a final rejection that is not premature has been entered in a case, applicant or patent owner no longer has any right to unrestricted further prosecution. **This does not mean that no further amendment or argument will be considered. Any amendment that will place the case either in condition for allowance or in better form for appeal may be entered.** Also, amendments complying with objections or requirements as to form are to be permitted after final action in accordance with 37 CFR 1.116(a).

This is exactly the situation here. Entry of that amendment would place the case in better form for the present appeal. Claim 12 would still remain rejected based upon prior art (discussed below). Entry of the noted amendment to claim 12 would remove the § 101 double patenting rejection, thereby streamlining the present appeal.

b. The Provisional Rejection of Claims 1-8 and 12-16 for Obviousness-Type Double Patenting

As noted, these claims were provisionally rejected based upon Appellant's copending '556 application. The '556 application is currently pending and on appeal.

Appellant previously indicated that it will file a Terminal Disclaimer in either the present application or in the '556 application, whichever issues later.

In response, the Examiner cited MPEP § 804.02 for support that terminal disclaimers must be filed in both copending applications.

Once again, Appellant does not dispute the existence of the cited passage in the MPEP.

However, Appellant merely requests that the Board and the Examiner consider the lack of logic and contradictory effect in simultaneously filing two terminal disclaimers in two copending applications. Each disclaimer would disclaim the patent term based upon the expiration of the term in the other patent. As a result, the length of patent term in each patent would be indefinite.

There is nothing improper in Appellant's offer, stated on the record, to submit a Terminal Disclaimer in the later issuing case. In fact, Appellant's attorneys routinely handle situations like this in such manner. Accordingly, Appellant's attorneys are surprised by this Examiner's practice.

2. The Rejections at Issue Based Upon Prior Art and the Examiner's Mischaracterization of that Art

One issue involves the rejection of claims 1-5, 13, 14, and 16 under § 103(a) based upon U.S. Patent No. 4,431,193 to Nesbitt in view of U.S. Patent No. 5,222,739 to Horiuchi et al.

Claim 1 recites a golf ball comprising a core, an inner cover or mantle layer comprising a high acid ionomer that includes at least 16% by weight acid and an outer cover layer that comprises a soft polymeric ionomer material.

Appellant submits that the '739 patent to Horiuchi teaches the use of ionomers having 16% to 30% by weight acid in a single outer cover layer. Specifically, the Horiuchi et al. patent describes:

Thus, the present invention provides a golf ball which comprises a core and a cover covering the core

Col. 1, lines 36-38.

For example, a cover resin composition is formed into hemispherical half shells and a core is surrounded with two half shells, followed by pressure-molding at 130 to 170°C. for 1 to 5 minutes. Also, the cover composition may be injection-molded to cover the core. A thickness of the cover layer is generally 1.0 to 3.0 mm.

Col. 2, line 66 to col. 3, line 4.

The solid core was covered with the cover resin composition by an injection molding to obtain a two piece solid golf ball. The ball was then coated with a paint to obtain a golf ball having a diameter of 42.8 mm.

Col. 3, lines 33-36.

A designer looking to the teachings of the '739 patent to Horiuchi et al. would be motivated to utilize a single cover layer configuration. If someone did look to the '739 patent in designing a multi-layer cover golf ball, one would be motivated to use the high acid ionomer taught by Horiuchi in an outer cover layer. This provides, among other things, improved scuff resistance and/or durability when the abrasive surface of the club face comes in contact with the outer surface or cover of a ball. There is absolutely no teaching in the '739 patent to Horiuchi to suggest that the benefits described therein are applicable or transferable to an inner cover layer or mantle of a multi-layer golf ball. Specifically, there is no teaching in Horiuchi et al. to suggest that the benefits achieved utilizing the high acid ionomer as an outer cover are obtainable when the high acid ionomer is utilized as an inner cover layer in combination with an outer cover layer comprising a soft polymeric ionomer. As a matter of fact, properties such as improved scuff resistance would have no benefit to the inner cover or mantle layer of a ball.

The Examiner is basing his rejection on impermissible hindsight reconstruction (citations omitted). One may not look to the prior art and selectively pick and choose from various passages to recreate the claimed invention. This is well established in the law (citations omitted).

Additionally, following the teaching of the '193 patent to Nesbitt, also cited by the Examiner, one would be motivated to use a relatively low acid ionomer such as Surlyn 1605 in the inner cover layer. This is expressly noted in the '193 patent at col. 3, lines 26-29. As correctly pointed out by the Examiner, Surlyn 1605 is an ionomer comprising 15% acid. This arrangement is opposite from that recited in the pending claims.

Therefore, there is no motivation, other than through prohibited hindsight reconstruction in view of the claimed invention, to combine the '193

patent and the '739 patent to arrive at the claimed invention. The '193 patent to Nesbitt teaches relatively low acid ionomers and would teach away from using high acid ionomers in an inner cover layer. The '739 patent to Horiuchi et al. discloses high acid ionomers in outer covers (of a single cover layer golf ball) and would additionally teach away from using high acid ionomers in an inner cover layer of a multi-layer golf ball.

Claims 2-5 and 14 are all dependent from independent claim 1 and so, contain all of the recitations of that claim. In addition, those claims further recite additional aspects that when taken in conjunction with the novel features called out in independent claim 1, are clearly distinguishable over the limited disclosures of the patents to Nesbitt and Horiuchi.

Similarly, independent claim 13 parallels independent claim 1 and additionally recites that the inner cover layer comprises an ionomeric resin that includes about 17% to about 25% of an alpha, beta-unsaturated carboxylic acid and has a modulus of from about 15,000 to about 70,000 psi. Claim 13 further recites that the outer cover layer has a modulus of about 1,000 to about 30,000 psi.

There is absolutely no teaching of the previously noted aspects called out in claims 1 and 13, and certainly no teaching of these aspects in combination with the additional features recited in claim 13. Simply put, it is improper for the Examiner to point to selected passages from these unrelated patents and haphazardly combine those passages to try to reject the pending claims. Furthermore, claim 16 depends from claim 13 and so, contains all of the recitations of that claim.

In support of his rejection, the Examiner argued:

Nesbitt discloses golf balls having a hard inner cover and a softer outer cover. A suggested material for the outer cover is Surlyn 1855 (col. 3 line 38). Surlyn 1855 inherently is a zinc ionomer of an ethylene/acrylic acid copolymer having 10% acid (see Warner col. 4 line 53-56). Surlyn 1855 has a flex modulus of 640 kg/cm² (table 4-C9 of Kyo) which converts to 9,000 psi.

Nesbitt does not limit himself to any particular ionomer as his inner cover, although Surlyn 1605 (col. 3 line 28) is suggested. Surlyn 1605 is a sodium ionomer of ethylene/methacrylic acid copolymer having 15% acid (see Parnell col. 4 line 68). This "15 acid" borders on appellant's "16% acid".

It is known that higher acid ionomers (above 16%) are stiffer, have higher impact resilience, farther flying distance and superior cut resistance (see Horiuchi col. 1 line 55-59).

It would have been obvious to use ionomers having above 16% acid as Nesbitt's inner cover. Nesbitt's inner cover of "hard, high flex modulus" ionomer is intended to provide the maximum coefficient of restitution (i.e. impact resilience). This is exactly the properties high acid ionomers are known to provide.

Use of slightly higher acid based ionomers (16% vs. 15%) in the inner cover would be expected to improve flight distance for the ball.

Examiner's Answer.

First of all, the Examiner's blanket assertion that "(I)t is known that higher acid ionomers (above 16%) are stiffer, have higher impact resilience, farther flying distance and superior cut resistance (see Horiuchi, col. 1, lines 55-59)" is incorrect. Contrary to the Examiner's statement, there is no exact correlation here.

The properties of the ionomers vary from low acid to high acid ionomers. See for example, Escor (Iotek) 960 (page 15, lines 8-16 of the application) which has an acid content of about 19-21% but a low cover hardness (i.e. Shore D 57) and flexural modulus value (i.e. 27 K psi) compared to low acid ionomers.

Additionally, the Examiner's "would have been obvious" rejection is improper (citations omitted). Nor is the Examiner's rush to recreate the presently claimed subject matter permissible by guessing that use of certain ionomers in certain components of a golf ball "would be expected" to lead to certain characteristics. The Examiner's guess is simply that - a guess. Moreover, the Examiner's "armchair rejection" ignores the many other and significant features recited in the pending claims. Furthermore, the Examiner's selective reliance on certain passages and ignoring other passages in the cited art is improper. These deficiencies are explained below.

In his Answer, the Examiner responded to Appellant's reasoning that claims 1-5, 13, 14, and 16 are patentable by asserting:

Appellant argues Nesbitt and Horiuchi cannot be combined, because Nesbitt is directed to three layer balls, while Horiuchi is directed to two layer balls.

Examiner's Answer.

Appellant does not argue that "Horiuchi is directed to two layer balls." No. Instead, Appellant has cited the fact that Horiuchi discloses the use of ionomers in a single outer cover layer.¹ The Examiner appears to ignore this fact and attempts to apply the description from a patent directed to a single cover layer to claimed subject matter utilizing a dual cover layer. That is improper.

The Examiner continued and asserted:

Of course Horiuchi does not suggest three layer balls. The reference would have been applied anticipatory if such a suggestion was present in the reference.

Arguing the secondary reference is not anticipatory is never convincing against a 103 type rejection.

Examiner's Answer.

Again, the Examiner takes great liberties by now alleging that had Horiuchi disclosed "three layer balls" then that reference "would have been" anticipatory. No. Horiuchi would have to disclose much more in order to properly anticipate the pending claims. Assuming, as the Examiner does, that Horiuchi were to disclose a dual cover layer assembly (which clearly Horiuchi does not), Horiuchi still does not disclose that the inner cover layer comprises at least 16% by weight of an alpha, beta unsaturated carboxylic acid. Additionally, Horiuchi still does not disclose that the outer cover layer comprises a relatively soft polymeric low flexural modulus ionomer resin. Furthermore, Horiuchi still does not disclose the combination of the use of these materials in the particular layer arrangement recited in the claims at issue. Moreover, Horiuchi entirely fails to disclose the

¹The Examiner mischaracterizes the teachings of Horiuchi by suggesting that Horiuchi discloses "two layer balls." No. Horiuchi discloses two component balls, with only a single cover layer.

particular combinations of features recited in the pending dependent claims. It is improper to simply ignore these aspects and conclude that in the event Horiuchi disclosed a dual cover layer assembly, then Horiuchi would anticipate the pending claims. The Examiner is wrong.

The Examiner continued and asserted:

The examiner relies on Horiuchi to teach the benefits of high acid ionomers. Higher stiffness and higher impact resilience (resulting in better flying performance) is achieved when using ionomers of 16-30% acid. These are precisely the characteristics called for by Nesbitt for his inner layer (col. 1 lines 57-60). Nesbitt does not explicitly teach any acid level in his inner cover ionomer (although inherently 15% is used). One practicing Nesbitt's invention would select ionomers of high flex modulus (i.e. stiffness) and coefficient of restitution (impact resilience). The recently developed ionomers of 16-30% acid meet this criteria.

Examiner's Answer.

Although Nesbitt notes that it is desirable to utilize a hard, high flexural modulus resinous material in an inner cover layer, the Examiner ignores the fact that Nesbitt teaches the use of a low acid ionomer in an inner cover layer. It is improper to adopt certain teachings in a reference and to ignore other teachings in that same reference.

Furthermore, the Examiner incorrectly concludes that a suggestion to use a "hard, high flexural modulus material" necessarily means that a high acid ionomer be used. Numerous low acid ionomers are known that are hard and which exhibit high flexural modulus values. Furthermore, a wide array of non-ionomeric materials are known which are hard and that exhibit high flexural modulus values. Moreover, several high acid ionomers are not hard, etc.

The Examiner then continued and asserted:

It appears appellant is merely "updating" Nesbitt's inventive concept of stiff inner cover (for shot distance) and soft outer cover (for "feel") by replacing the older stiff ionomer with newer stiff ionomer. Only the expected improvements are obtained.

Examiner's Answer.

This is entirely incorrect. Appellant takes issue with the Examiner's mischaracterization and degrading comments concerning the present invention. The pending claims recite specific unique features, the culmination of which resulted from extensive research and development efforts by the Assignee, Spalding Sports Worldwide, Inc. It is simply wrong to refer to the present invention as an "update" of Nesbitt's invention.

The Examiner further asserted:

Arguments that claims 2-5, 13 and 14 recite additional aspects not suggested by Nesbitt/Horiuchi are clearly false.

Nesbitt claims (#4-6) thicknesses and diameters that overlap appellant's ranges. Nesbitt's outer cover of surlyn 1855 has been proven to have a modulus of 9,000 psi. Horiuchi's table 1 exemplifies high acid ionomers with the proper acid content and modulus.

Examiner's Answer.

The Examiner glosses over the many significant aspects called for by the noted claims. And of particular importance is the fact that the Examiner, in rejecting these claims, ignores the unique and specific combination of features that these claims call for.

The Examiner refers to claims 4-6 of the Nesbitt reference and argues that the ranges of thicknesses and ball diameter disclosed in these claims somehow renders the pending claims unpatentable.

Once again, the Examiner ignores the particular combination of features recited, such as in claim 4, and the further combination of those features in conjunction with the features recited in claim 1, from which claim 4 depends. Instead, the Examiner merely picks and chooses from various passages in the cited art in an attempt to recreate the claimed subject matter. It is doubtful that anything could be patented if subjected to such examination!

In summary, the '193 patent to Nesbitt and the '739 patent to Horiuchi et al. fail to teach the subject matter of claims 1-5, 13, 14, and 16. In many respects, these patents teach away from the noted claims. A rejection based on these patents is clearly improper.

Another issue involves the rejection of claims 1-8 and 12-16 under § 103(a) based upon the noted patents to Nesbitt and Horiuchi et al., in further view of U.S. Patent No. 4,884,814 to Sullivan et al.

In support of this rejection, the Examiner alleged:

Nesbitt does not suggest his outer cover as being a blend of hard and soft ionomer. Blends of hard and soft ionomer are known to provide a balance of distance, spin and durability not obtainable previously (see Sullivan col. 3 lines 38-64).

It would have been obvious to use a blend of hard and soft ionomer as Nesbitt's outer cover for the expected benefits.

Examiner's Answer.²

Although claims 6-8 and 12 recite an outer cover layer of a certain blend of materials, those claims are readily distinguishable from the '814 patent to Sullivan. The '814 patent is directed to golf balls having a single cover layer comprising a particular blend of ionomers. All pending claims including claims 6-8 and 12 recite a multi-layer golf ball having an inner cover layer of a particular composition and an outer cover layer having another particular composition. The '814 patent to Sullivan does not remedy the deficiencies of the previously discussed combination of the '193 patent to Nesbitt in view of the '739 patent to Horiuchi et al.

And, in response to Appellant's explanation as to why the claims at issue are patentable over the cited art, the Examiner argued:

Appellant argues Sullivan is limited to two layer balls while Nesbitt is directed to three layer balls.

Appellant fails to provide any reasoning why the advantages of Sullivan's hard/soft ionomer blend would not be expected to manifest themselves on a three layer ball such as the Nesbitt ball. Sullivan teaches an outer cover of a hard/soft ionomer blend results in a soft cover that a skilled golfer can impart backspin to (abstract).

These are the qualities Nesbitt desires in his outer cover.

² It is unclear why the examiner rejected claims 1-5 and 13-16 on these grounds since these claims do not recite blends in an outer cover layer.

Examiner's Answer.

It is the Examiner that fails to provide any reasoning why he engages in the practice of picking and choosing selected passages in the cited patents and to ignore other passages. The Examiner should be aware that hindsight reconstruction is not permitted.

It is conceivable that if the cited art provided the requisite motivation to utilize a blend of hard/soft ionomers in an outer cover of a golf ball as recited in claims 6-8 and 12, then the advantages associated with the use of that blend might be imparted to the resulting golf ball. However, rejecting the present claims on this ground is improper. The art relied upon still fails to teach the particular combination of materials and arrangement of layers as called for in the pending claims. The law requires rejection based upon teachings in the art and not what might be conceivable.

However, it is Appellant's further position that the '814 patent to Sullivan is not particularly relevant to the patentability of the other claims grouped in this rejection. Claims 1-5, 13-16 do not recite a blend of components in any cover layer. Clearly, the '814 patent is not relevant to the patentability of those claims.

For at least these reasons, Appellant respectfully submits that the present rejection be withdrawn.

3. The Previously Submitted Evidence of Commercial Success

On the last page of the Answer, the Examiner devotes three paragraphs as to why the previously submitted evidence of commercial success is "not convincing."

Appellant respectfully requests that those comments be dismissed.

The present appeal is not based upon that evidence. This was made absolutely clear in Appellant's previously filed Appeal Brief:

Appellant previously submitted evidence of the significant commercial success of the commercial embodiment golf balls of the present invention. Although it is Appellant's position that such evidence is highly persuasive of the nonobviousness of the pending claims, the

present appeal and Appellant's reasons in support of this appeal, are not based upon the previously submitted evidence of commercial success.

Page 4 of Appellant's Appeal Brief.

Conclusion

Appellant submits that the Examiner's rejections are improper and/or misplaced. Reversal of all of the rejections is respectfully requested.

Respectfully Submitted,

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